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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,947	06/27/2001	Solomon Trainin	42390.P10772	6304

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EXAMINER

FLEMING, FRITZ M

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 03/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/893,947

Applicant(s)

TRAININ

Examiner

Fritz M Fleming

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-30 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


FRITZ FLEMING
PRIMARY EXAMINER
GROUP 2100

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-10, drawn to a method for receiving frame data and header information and zero-copying the payload into an AM and storing the header into an RFD, classified in class 709, subclass 250.
 - II. Claims 11-30, drawn to a machine readable medium causing a processor to allocate at least one AM buffer for frame data payload, storing frame header data in an RFD and then dynamically allocating or de-allocating at least one RBD corresponding to said at least one allocated AM buffer and a system including at least one CPU, at least one buffer unit, at least one memory unit to include at least one AM buffer, and then an enabling of dynamic allocation or de-allocation of at least one RBD, classified in class 710, subclass 56.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions of groups I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because of the

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reasons set forth below. The subcombination has separate utility such as those set forth below.

The claims are being restricted into two groups, namely group I drawn to claims 1-10 and a method for receiving frame data and header information and zero-copying the payload into an AM and storing the header into an RFD; and group II drawn to claims 11-20 and a machine readable medium causing a processor to allocate at least one AM buffer for frame data payload, storing frame header data in an RFD and then dynamically allocating or de-allocating at least one RBD corresponding to said at least one allocated AM buffer based upon further limitations drawn to the RFD and the LCRN and claims 21-30 drawn to a system including at least one CPU, at least one buffer unit, at least one memory unit to include at least one AM buffer, and then an enabling of dynamic allocation or de-allocation of at least one RBD based upon further limitations drawn to RFD, RBD and LCRN. Thus the distinguishing feature of the two groups of claims is the reliance on claim 1 "zero-copying" absent any dynamic allocation or de-allocation of RBDs (as relied upon in claims 11 and 21), as claim 1 is devoid of any RBDs. In fact, claim 2 does mention a singular RBD and the allocation comprising the creation of the RBD (claims 11 and 21 have a queue of RBDs and at least one of them is dynamically allocated or de-allocated), but such is not done "dynamically" (as required in claims 11 and 21), and such does not have a de-allocation (as required by claims 11 and 21). On the other hand, claims 11 and 21 are devoid of any "zero-copying" of the payload data into at least one AM buffer, as well as also being devoid of any initial receiving buffer from which to initiate the "zero-copying". Hence, it can be

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argued that group I and group II are related as combination, subcombination, where the combination claims 1-10 do not require the details of the subcombination claims 11-30 dynamic allocating or de-allocating within a queue of RBDs at least one RBD corresponding to at least one allocated Am buffer, and that the subcombination claims 11-30 have separate utility as a dynamic RBD allocation and de-allocation mechanism. Also, group II and group I are related as combination and subcombination, where the combination claims 11-30 do not require the details of the subcombination claims 1-10 "zero-copying" as the combination claims are devoid of an initial receiver buffering and subsequent "zero-copying", and the subcombination claims have a separate utility as a "zero copy" mechanism. Thus restriction amongst the two groups is required, as the two groups are directed towards fundamentally different claimed combinations and subcombinations, wherein each combination does not rely upon the specifics of the subcombination, and each subcombination has a separate utility. Restriction is also further shown to be proper, based upon separate classifications for groups I and II, as well as different fields of search for the two groups. For example, the field of search for extends into class 709, subclasses 230 and 250, while the field of search for extends in to classes 710, 370 and 340.

3. Inventions of groups I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention of group I has separate utility such as a zero copy mechanism to reduce the number of overhead copies made in a network data transaction. See MPEP § 806.05(d).

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4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

5. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

6. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.


7. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fritz M Fleming whose telephone number is 571-272-4145. The examiner can normally be reached on M-F, 0600-1500.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on 571-272-4146. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Fritz M Fleming
Primary Examiner
Art Unit 2182

fmf